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and Soil Water Conservation

United States
Department of
Agriculture

Soil
Conservation
Service

11 IN 4 DEP 30

MARCH-APRIL 1991

Volume 11, Number 8



**Partners in
Conservation**

Cover: Patty Engler, SCS Monocacy River Demonstration Project Facilitator, and Jeff England review the conservation plan for England's 209-acre Frederick County, Md., dairy farm. The farm has been selected as one of eight national water quality demonstration project sites. (Tim McCabe photo)

Soil and Water Conservation News is the official magazine of the Soil Conservation Service. The Secretary of Agriculture has determined that publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing *Soil and Water Conservation News* has been approved by the Director of the Office of Management and Budget. *Soil and Water Conservation News* (ISSN 0199-9060) is published 6 times a year. Postage paid at Washington, D.C.

Soil and Water Conservation News and other SCS reports are available electronically on the Computerized Information Delivery (CID) System. For subscription information, call 202-447-5505.

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Subscriptions
\$6.00 per year domestic; \$7.50 per year foreign. Single copies \$1.25 domestic; \$1.50 foreign. Send subscription orders to: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402

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Comments from the SCS Chief:

Partnerships in Conservation

As a farmer, I have always viewed good stewardship of the land as being dependent on partnerships. Partnerships also are a **must** for the Soil Conservation Service, and we need to do even more with them; among the most effective is that of SCS with farm and conservation groups.

The Soil Conservation Service—along with the Agricultural Stabilization and Conservation Service, the Agricultural Research Service, the Extension Service, and the Farmers Home Administration—strives to maintain good working relationships with other government agencies concerned with conservation and water quality such as the Environmental Protection Agency and the Fish and Wildlife Service. We work extensively, too, with outside organizations like the National Association of Conservation Districts (NACD) and local district boards.

I believe SCS has done an excellent job of gaining the respect of diverse agricultural and conservation groups. These groups have learned that we intend to be fair, objective, and professional in our decisionmaking. We don't, and won't, always agree in every particular with our partners, but we can work together to respect each other's ideas and motives.

SCS never could have met the 1985 Farm Bill conservation planning deadline without the help of our traditional conservation district partners. We have a special relationship with districts that sets them apart. And success in the 1990's is going to depend on developing an even stronger partnership with them.

Many conservation districts are celebrating 50 years of service this year. In keeping with that tradition, NACD has created a District Capacity Building Task Force to encourage conservation districts to assess their capacities to carry out their missions. The task force also will help districts develop and implement strategic plans for effective local resource conservation programs. NACD recently announced a pilot program in this area in conjunction with SCS and the National Association of State Conservation Administrative Officers.

As SCS has more opportunities to serve the public concerning conservation compliance, wetlands, and water quality, partnerships such as these will be the key to shaping and administering soil and water conservation programs in the years ahead. I look forward to maintaining and strengthening these important relationships.



Chief

Contents



4 Conservation Partners

Time to Say 'Whoa' on the Tangipahoa (La.)

Constructed Wetlands Handle Waste (Ga.)

Hog-Raising County Cleans Up (S.C.)

8 Supervisor Marks 50-Year Conservation Career (Md.)

9 SCS Focuses on Limited Resource Farmers (Pa.)

10 Idaho's 'CRM Team' Defuses Conflicts

11 Index (April 1990 through March-April 1991)

14 A Dream Comes True (Ariz.)

15 Extra Effort Brings Success (W.Va.)

16 National Conservation Program: A Framework for Cooperative Action

18 Agencies Cooperate in Iowa

19 Farmers Respond to Videotape

Departments

20 News Briefs

23 New in Print

24 Calendar

Conservation Partners

Time To Say 'Whoa' On the Tangipahoa

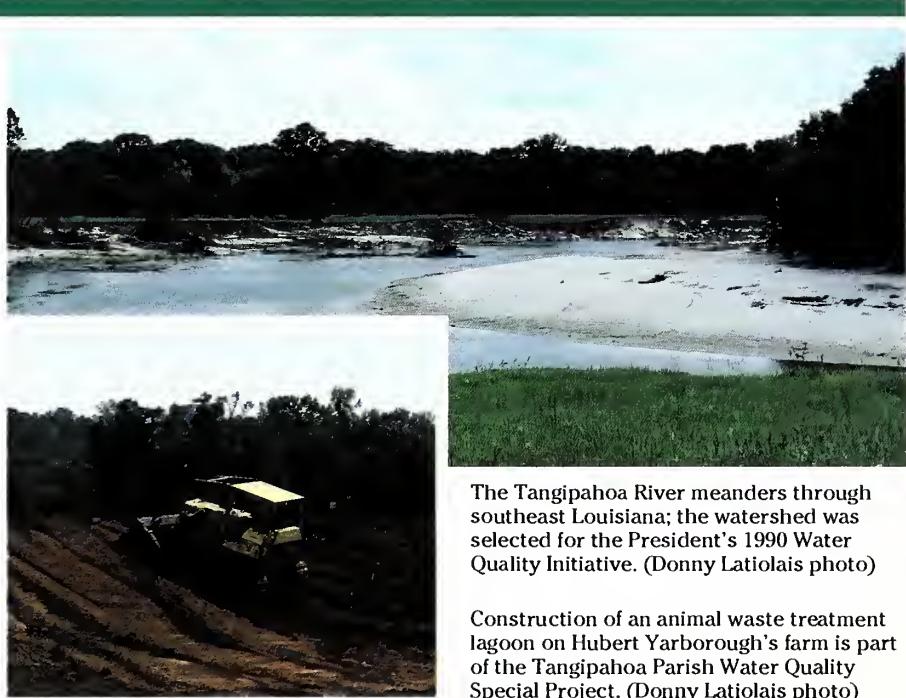
THE WORK DAY begins early for Soil Conservation Service staff members in Amite, La., who are working hard on the Tangipahoa Water Quality Special Project. The Tangipahoa River was 1 of 37 watersheds nationwide initially selected for the President's Water Quality Initiative.

"The Agricultural Stabilization and Conservation Service (ASCS) began the water quality effort when the scenic Tangipahoa River was found to contain high levels of bacteria and other pollutants," explained Donny Latiolais, SCS district conservationist, Amite, La.

The project is a cooperative effort of U.S. Department of Agriculture agencies, the Tangipahoa-St. Helena Soil and Water Conservation District, and several State agencies.

In 1989, ASCS provided \$1.1 million to help dairy farmers install no-discharge, animal waste-control systems in Tangipahoa Parish under the Tangipahoa Water Quality Special Project.

"The no-discharge system enables farmers to take care of the wastes on their own land," said Chuck Edwards, ASCS county executive director in the parish.



The Tangipahoa River meanders through southeast Louisiana; the watershed was selected for the President's 1990 Water Quality Initiative. (Donny Latiolais photo)

Construction of an animal waste treatment lagoon on Hubert Yarborough's farm is part of the Tangipahoa Parish Water Quality Special Project. (Donny Latiolais photo)

"We're trying to help dairy farmers reduce or eliminate any discharge that would ultimately reach the Tangipahoa River."

After the ASCS county committee approves an individual application, an SCS staff member meets with the dairy farmer to look at alternatives and review waste treatment needs. This is the beginning of a long-term agreement. The visiting SCS staffer looks at the number of animals on the farm, how much water is used daily, and how the animal waste is removed.

Latiolais explained, "From our initial visit, we determine the conservation practices needed, such as waste facilities, stream protection, livestock crossings, water wells, and sod waterways. The practices are discussed in detail with the land users, and a schedule is drawn up to begin those practices over 3 to 5 years."

A later, more extensive SCS sur-

vey involves measurements, soil borings, and other related work. January 1, 1990, marked the start of the first year of implementation of the conservation practices for most of the farmers who were approved for cost-sharing assistance.

For the 1990 fiscal year, the Tangipahoa Water Quality Special Project was expanded to include St. Helena and Washington Parishes. ASCS has provided an additional \$604,000 for dairy farmers in the two parishes.

Many dairy operators in the three parishes were receptive to the water quality project. "It would have been very difficult for them to install no-discharge systems without cost-sharing," noted Latiolais.

Herb Bourque, public affairs specialist, SCS, Alexandria, La.

This was the first time artificial wetlands were built on private land in the Southeastern United States.

Constructed Wetlands Handle Waste

WHAT SAYs 19 different organizations can't work together? National, State, and private agencies may be willing, if the cause is right.

Recently, that many resource agencies in Georgia joined forces to improve water quality. The resulting project could revolutionize the way that animal waste is

handled. The role of the Soil Conservation Service—providing technical assistance to the project—was coordinated by Josh Wheat, district conservationist in Madison, Ga.

With about one-third (200) of Georgia's dairies located in five counties in the Piedmont Soil and Water Conservation District (SWCD), nonpoint source pollution from animal waste causes concern. These counties border on two of Georgia's major reservoirs, Lakes Sinclair and Oconee.

Conventional treatment of animal waste uses waste lagoons to store manure. To prevent overflow, the lagoons must be pumped out annually, and the material applied to adjacent land.

Because lagoon pumping is costly, many farmers choose not to do it. With this fact in mind, the Piedmont SWCD looked for new solutions. To date, 19 agencies are involved in the resulting project, which has two main parts. Farmers were encouraged to:

- Construct artificial wetlands to handle the overflow from lagoons, using Environmental Protection Agency (EPA) and Georgia Department of Natural Resources (DNR) grants. Other monies came from the Oconee River Resource Conservation and Development (RC&D) Council, the Piedmont SWCD, and the Georgia Power Company for seeding, mulching, and planting the new areas; and

Don Surrency, center, and Mike Owsley, right, SCS plant materials specialists, review the work as Oconee River RC&D Council coordinator Mac Hayes drives a tractor used as a planter. Cattails, bullrushes, and maidencane were planted in the new wetlands. (Barbara McWhorter photo)



Conservation Partners

- Install animal waste lagoons and other conservation measures using \$300,000 cost-sharing funds from the Agricultural Stabilization and Conservation Service.

In addition, the district purchased pumping equipment with \$162,000 provided by the Georgia DNR.

"Even if I was willing to spend the money for pumping, I don't have enough land to handle the waste," said dairy farmer Richard Key. Key's lagoon was overflowing.

The project helped Key and Howard McMichaels construct two artificial wetlands on their dairy farms in the Piedmont SWCD. Work began in May 1990, when shallow wetland areas were built below animal waste lagoons to handle overflow. This was the first time artificial wetlands were built on private land in the Southeastern United States.

Micro-organisms associated with growing plants will help the wetlands break down animal waste products before they can enter streams and lakes. For the next 5 years, EPA will monitor water quality within the wetlands.

Don Surrency, SCS plant materials specialist, Athens, Ga., worked with Oconee River RC&D Council coordinator Mac Hayes to locate plant materials to stock the artificial wetlands. The Brooks County Boy Scouts, EPA, the State Soil and Water Conservation Commission, and the Georgia Forestry Commission assisted with the planting.

Sarah Taylor, writer-editor intern, SCS, Washington, D.C.

Hog-Raising County Cleans Up

HIdden at the fringes of the Myrtle Beach resort area is South Carolina's premier swine-producing county. Besides hosting a million or more tourists annually, Horry County raises more than 52,000 hogs per year.

The high animal numbers present an animal-waste treatment concern. Lack of proper treatment

has contributed to poor water quality in certain areas.

"Potential for ground or surface water contamination is high because of the county's sandy soils," explained Alex Johnson, Soil Conservation Service district conservationist for Horry County. "Animal waste is a source of nitrate, which must be eliminated to maintain adequate water quality." Johnson noted that the county has been named a priority area in South Carolina's Nonpoint Source Management Plan.

Extra control efforts began in late 1988 when the South Carolina Department of Health and Environmental Control added personnel to tackle the animal waste problem.



Some 600 brood sows have housing on the Winburn farm. (Debbie Cribb photo)

"The farmers are beginning to see the waste is worth its weight in gold—or fertilizer, that is."



Alex Johnson, Horry County district conservationist, discusses the management plan for their farm's wastewater with (from left) Randall, Johnnie, and Glenn Winburn. (Debbie Cribb photo)

State workers identified the hog operations that had deficiencies in waste treatment. Each such operation was given a time period in which to correct the problems or face closure.

Johnson remembered, "Some operations were in very bad condition. In places, the untreated waste was running right into the Little Pee Dee River that is heavily used for recreation."

Shelton Dawsey, Horry County executive director for the Agricultural Stabilization and Conservation Service, worked with Johnson to find funds for improvement.

"The farmers are beginning to see the waste is worth its weight in

gold—or fertilizer, that is," observed Johnson. "We were all glad to be able to help them," added Dawsey.

Over 18 months, \$384,000 was spent; water quality project funds, Agricultural Conservation Program funds, and long-term agreements were used on the project.

The project involved completing 73 waste management systems for sow operations ranging from 20 to 850 head. Up to 75 percent of the cost of construction, to a maximum of \$10,500, was awarded to each producer for a 3-year contract to make improvements.

Most new systems installed are anaerobic lagoons that allow bacteria to break down the harmful waste components. The waste wa-

ter is then pumped from the lagoon and applied by portable or permanent irrigation methods to cropland or pastureland.

Brothers Johnnie and Gene Winburn and their three sons farm some 1,800 acres in Horry County and maintain an operation of 600 brood sows. Using project money, the family rebuilt three holding ponds to irrigate 50 acres with the waste water. Plans call for adding enough pipeline to irrigate a total of 100 acres.

While laying the first section of pipeline, the Winburns learned some ways to improve their irrigation system. Randall Winburn noted, "When you put in PVC pipe near livestock, put it low to the ground, because the animals will try to rub against it and they can knock the irrigation connectors off. The connectors should be made of aluminum, or nitrogen in the waste water will make them rust."

SCS assisted the Winburns with their management plan. It spells out the amount of waste water to apply to each field, based on the types of soil present and the crops raised.

"The changes in my operation took about a month to make, but they will have a long-term effect on the environment," said Winburn. "It's worth it!"

Debbie Cribb, public affairs specialist, SCS, Columbia, S.C.

"He's a walking encyclopedia on this area."

Supervisor Marks 50-Year Conservation Career

LINING THE WALLS of the old mansion are portraits of ancestors who lived in castles in England and who knew George Washington. W. Mitchell "Mitch" Digges proudly displays his father's portrait and a photograph of his brother; both were members of the Maryland Court of Appeals.

Though Digges "lives and loves" history, his first love is soil conservation and natural resources. As of March 1991, he completed his 50th year as Soil Conservation District Supervisor in Charles County, Md. Although Digges is not planning to retire, it is time for quiet reflection on a long and satisfying career.

"I bought a farm in 1937 that had a lot of hills on it and I needed conservation help immediately," Digges recalled. "I just found out what could be done to stop the erosion, and did it!"

"Back in March 1941, I was asked by the county agent if I was interested in becoming a district supervisor for a newly formed soil conservation district including Charles County. I didn't feel I knew anything then. What I didn't know when I accepted was that I was about to embark on a 50-year learning curve."



For 50 years, W. Mitchell "Mitch" Digges has been Soil Conservation District Supervisor in Charles County, Md. (Kathleen Diehl photo)

"I doubt that anybody knows more than Mitch about Charles County," observed John Kimmons, Soil Conservation Service district conservationist in Charles County. "He knows about every erosion problem that ever was and how it got fixed. He's a walking encyclopedia on this area."

During the 1940's, tobacco was the main crop in Maryland. Digges and four other district supervisors promoted conservation practices such as contour strips, grass waterways, farm ponds, and a lime application program.

"There was a good working relationship between the Department of Agriculture's Extension Service, the University of Maryland, and the developing soil conservation districts in the State of Maryland," Digges related.

After watershed legislation was passed in the 1950's, Digges was involved with the Gilbert Run Public Watershed Association, the first watershed project in southern Maryland. Funds were available to promote the watershed and related flood prevention project.

"I thought about a brochure, a display..." Digges remembered. "But I finally decided to use the funds to charter buses and take the resistant farmers and county officials to see an established watershed in Virginia. That's all it took."

Digges continued, "We built three lakes with dams to control the water at a total cost to the government of \$3.650 million. That wouldn't be possible today. The flood prevention plan was productive for the bottomland farmers. It was covered in Time magazine; I was very proud of that."

Digges helped incorporate the Association of Maryland Soil Conservation Districts and served on the State Soil Conservation Committee from 1966 until 1988. In 50 years as a district supervisor, he says he missed only one district meeting and attended every annual meeting of the State association.

The biggest change Digges noted was the explosive population growth of Charles County. "It has kept the district active trying to deal with the erosion and water quality problems caused by population growth," he said.

Digges summed up his career: "I really enjoy this work. I just feel it is no use belonging to an organization if you're not going to take part in it. You don't do yourself or the organization any good unless you live by the pledge."

"Mitch" Digges has lived by the pledge for 50 years, and the Charles County Soil Conservation District has profited from his dedication.

Kathleen Diehl, public affairs specialist, SCS, Annapolis, Md.

"We offered the districts loose guidelines so they could design innovative programs . . ."

Conservation district supervisors with 50 or more years service:

Harold Hirsch, Arkansas, Sharp County Conservation District

Homer Purtle, Arkansas, Nevada County Conservation District

Jim L. Gillis, Jr., Georgia, Ohoopee Soil and Water Conservation District

J.C. Wise, Jr., Georgia, Lower Chattahoochee River Soil and Water Conservation District

James C. Beckett, Kentucky, Pendleton County Conservation District

Stanley Nelson, Montana, Wibaux Conservation District

Laurence Drake, Oklahoma, Harper County Conservation District

Nolen Fuqua, Oklahoma, Stephens County Conservation District

Ward Perryman, Oklahoma, Jackson County Conservation District

M.L. Long, South Carolina, Saluda Soil and Water Conservation District

Robert Graf, Vermont, Bennington Natural Resources Conservation District

guidelines so they could design innovative programs to best suit the needs of farmers in their county," Heidecker explained. "Participating districts supported the national program when it first got underway in March 1990. They realized time was limited, but all came up with good proposals and had signed agreements with SCS in time to get the program started last summer."

Lillian Theophanis, Susquehanna County soil and water conservation district manager, believes personal contact with farmers is her best tactic. A district technician and the county Extension agent help with the effort. Theophanis also uses field days and demonstrations to make farmers aware of available services.

Theophanis admits that the pilot project is challenging: "I find it stimulating, and it involves a lot of work. But our business is to save and protect soil. We need to work with all farmers to make that happen."

Once the local office has the attention of a limited resource farmer, help may be offered, such as soil test kits to improve pasture and fencing material so landowners can rejuvenate an existing pasture or start a new one.

One county in the RC&D area plans to make a detailed study of the successful pasture management techniques used by a local farmer and distribute the results to all the county's limited resource farmers.

The pilot project in the Endless Mountains RC&D area will run through September 1991.

Sylvia Rainford, public affairs specialist, SCS, Harrisburg, Pa.

SCS Focuses On Limited Resource Farmers

THE SOIL Conservation Service is working through soil and water conservation district offices to find unique ways to let limited resource farmers in northeastern Pennsylvania know how they can make their farms more productive.

Most of the U.S. Department of Agriculture agencies that work with farmers—SCS, Agricultural Stabilization and Conservation Service, Farmers Home Administration, and Extension Service—were represented at early planning meetings for this pilot project.

"Because it's a pilot program, we tested it in a Resource Conservation and Development (RC&D) area

where we know limited resource farmers are located," said Robert Heidecker, State resource conservationist and coordinator of the State's program for limited resource farmers.

The selected Endless Mountains RC&D area includes six counties: Tioga, Lycoming, Bradford, Sullivan, Susquehanna, and Wyoming. Farmers in the area contend with wet, steep, and stony soils and a short growing season, which reduces farm yields.

"A significant portion of the project area is suitable for pasture," noted Wayne Ray, SCS project coordinator. "A properly managed pasture system is a productive use of the land for many of these farmers."

SCS in Pennsylvania received a \$50,000 grant from the national limited resource farmer program to fund the pilot project. From this total, districts received \$42,000 for local projects, with the remainder of the funds used to support several area-wide projects.

"We offered the districts loose

Idaho's 'CRM Team' Defuses Conflicts

JOHN WANTS to fish, Bud wants to irrigate, Paula wants to swim, Randy wants to draw water for livestock, and Boise wants to use the water for drinking and other city purposes.

Conflicts arise when people with varied interests want to use the same water differently, and these uses affect each other and the water quality in an entire watershed.

To resolve water quality and quantity conflicts in Idaho, Coordinated Resource Management (CRM) has become the team-approach, team-coordination, and team-information tool to use.

The Soil Conservation Service actively participates at the local level in CRM along with Idaho's soil conservation districts; such Federal agencies as the Extension Service, Forest Service, and Bureau of Land Management; and the State of Idaho's Department of Fish and Game, Department of Lands, and Soil Conservation Commission.

"The key is cooperation and coordination among government, business, and people," said Lloyd Bradshaw, SCS district conservationist in Rexburg, Idaho. "CRM allows those with resource conflicts to come together, talk out their concerns, reach consensus decisions, and carry out action plans."



Coordinated Resource Management process in Idaho brings together landowners and resource specialists from SCS and other Federal and State agencies to discuss resource-use conflicts and to devise action plans for cooperative, wise resource management. These specialists are viewing range-use conflicts in Owyhee County, Idaho. (SCS photo)

CRM can complement any planning or management situation where mixed land ownerships or multiple resource management uses are involved.

"So far, we've used CRM when dealing with range and woodland management, water quality, watershed, and waste management problems," explained Paul Calverley, SCS State conservationist in Boise.

Successful CRM decisionmaking involves:

- Open talk, exchanging information, and using all available expertise;
- Focusing on specific conflicts and the best uses of available resources;
- Defining restrictions, regulations, and roles;
- Alleviating and/or rescheduling potentially incompatible conservation treatments; and
- Producing a more usable end product—an action plan that solves resource conflicts.

Idaho CRM planners involve key people—those in positions to make decisions. They keep interest high among all participants by carefully defining what's expected of them. They determine if time, funding, and people are available to complete a project satisfactorily and on schedule.

CRM planners incorporate monitoring and followup into each project, and they stress the positive: do the job correctly, verify it meets goals and objectives, and be sure the job continues to meet resource and user needs.

"To make CRM work, everybody must be absolutely committed to this planning process," added Calverley. "It's worked well in Idaho. And it can work in other States."

Robert Baum, State range conservationist, SCS, Boise, Idaho

Aquaculture

Plants Filter Mississippi Fish Pond, (Tex.). Art Greenberg, Nov.-Dec., p. 6.

Community Resource Planning

Community Outreach Gets Job Done, (Wash.). Nance Dunn, April, p. 5.

Compliance

Connecticut Farm Alters Forage Production, (Conn.). Philip J. Morneau, Sep.-Oct., p. 13.

District Leadership Helps Meet Compliance, (Mich.). Roger Howell, Sept.-Oct., p. 14.

New Study Looks at How Farm Bill Is Implemented. Sept.-Oct., p. 11.

Conservation Education and Youth

Almanac Gives a Boost To Education Project, (Ill.). March-April, p. 22.

Environmental Field Days, (N.C.). Tim Etheridge, Sept.-Oct., p. 16.

Land Judging Contest Promotes Conservation, (Okla.). Dwain Phillips, Sept.-Oct., p. 18.

Wisconsin Students Get Work Experience, (Wis.). Cheryl Rouse Manning, April, p. 12.

Conservation Planning

Being Sensible With Hogs In Maryland, (Md.). James W. Wist, May, p. 11.

Comments from the SCS Chief: Commonsense Conservation. May, p. 2.

Conservation Planning Progresses. May, p. 17.

Conservation Practices Keep Farms Productive, (Ala.). Morris S. Gillespie, May, p. 10.

Conservation Tillage Is Worth Using, (Iowa). Lynn Betts, May, p. 9.

New Training Piloted. Kathleen Diehl, May, p. 8.

Pasture Revival Could Aid Farmers. Kathleen Diehl, May, p. 12.

Planning With Common Sense. John Stierna, May, p. 3.

Conservation Reserve Program

CRP Nears 34 Million Acres. April, p. 17.

Environment

Earth Day Celebrates 20th Birthday. April, p. 17.

Environmental Field Days, (N.C.). Tim Etheridge, Sept.-Oct., p. 16.

Erosion Control

Permanent Cover Crop Found for Vineyards, (N.Y.). Martin van der Grinten, April, p. 14.

Food Security Act of 1985

A Different Look At FSA Planning, (Va.). William Cotter, Sept.-Oct., p. 16.

Bringing The Pieces Together, (Ga.). Diane Holcomb, Sept.-Oct., p. 9.

Comments from the SCS Chief: FSA Implementation: Putting Those Plans To Work. Sept.-Oct., p. 2.

Connecticut Farm Alters Forage Production, (Conn.). Philip J. Morneau, Sept.-Oct., p. 13.

Cotton Goes Under Cover In Deep South, (Miss.). James S. Parkman, Sept.-Oct., p. 10.

District Leadership Helps Meet Compliance, (Mich.). Roger Howell, Sept.-Oct., p. 14.

New Study Looks at How Farm Bill Is Implemented. Sept.-Oct., p. 11.

Putting FSA To Work: an overview. Gene Andreuccetti. Sept.-Oct., p. 3.

Trained Contractors Ease SCS Work Load. Wendell B. Moody, Sept.-Oct., p. 5.

History

SCS and "1890" Graduates: Of Mutual Benefit. Douglas Helms, July-Aug., p. 8.

The First Volunteers. Douglas Helms, April, p. 7.

International Conservation

Irish Pasture Management, (N.Y.). Darrell L. Emmick, Jan.-Feb., p. 12.

Rabbits And 'Roos' Range Down Under, (La.). Jack Cutshall, Jan.-Feb., p. 13.

SCS, USSR Exchange Reindeer Range Facts, (Alaska). Dan LaPlant, Jan.-Feb., p. 10.

USA, China Cooperate To Improve Grasslands,

(Oreg.). Jack R. Carlson, Jan.-Feb., p. 11.

SCS Part of A Southern Tradition, (La.). Herb Bourque, July-Aug., p. 10.

USDA and SCS "1890" Contacts. James E. Tatum, July-Aug., p. 5.

Virginia Awareness Effort Is A Success, (Va.). Kim Berry-Brown, July-Aug., p. 11.

Limited Resource Farmers

Alabama Projects in Vanguard, (Ala.). Maxine H. Barron, July-Aug., p. 12.

A Different Look At FSA Planning, (Va.). William Cotter, Sept.-Oct., p. 16.

Florida Plays "Simon Says", (Fla.). Virginia Hungerford, July-Aug., p. 15.

Maryland, SCS Study "Average" Farmer, (Md.). Sarah Laurent, July-Aug., p. 14.

SCS Focuses On Limited Resource Farmers, (Pa.). Sylvia Rainford, March-April, p. 9.

Virginia Awareness Effort Is A Success, (Va.). Kim Berry-Brown, July-Aug., p. 11.

Low Input Agriculture

Ancient Seeds Reappear, (N. Mex.). William W. Fuller, June, p. 8.

Comments from the SCS Chief: Sustainable Agriculture Adds Alternatives. June, p. 2.

Farmers Cultivate For Water Quality, (Conn.). Geri Nebor, June, p. 10.

Getting Help For Water Quality, (Conn.). Philip Morneau, June, p. 11.

Information Center Covers Sustainable Agriculture. June, p. 14.

Navajos Grow Corn As Their Elders Did, (Ariz.). Dave Seery, June, p. 12.

New Team On The Scene In Agriculture, (N.Y.). Pat Paul, June, p. 5.

SCS'ers Are CAREing and Comparing. (Nebr.). Douglas A. Christensen, June, p. 7.

Sustainable Agriculture Offers More Alternatives. Marc Safley, June, p. 3.

Sustainable Agriculture Works in Piedmont, (N.C.). James H. Canterbury, June, p. 9.

Management
'Gaining Ground' In Montana, (Mont.). John Halbert, Sept.-Oct., p. 15.

Idaho's 'CRM Team' Defuses Conflicts, (Idaho). Robert Baum, March-April, p. 10.

New Data Base Released. March-April, p. 20.

Workshops Cover Planning Manual and Tech Guide. Kim Berry-Brown, May, p. 16.

National Resource Inventory
Five-Year Inventory Completed. Paul G. DuMont, April, p. 16.

Neighbor-to-Neighbor Conservation
It's Old. It's New. It's Conservation Revitalized! Shirley Foster Fields, Sept.-Oct., p. 6.

Neighbor-to-Neighbor Fact Sheets Should: (boxed). Sept.-Oct., p. 7.

10-step procedure to organize Neighbor-to-Neighbor in your community. Shirley Foster Fields, Sept.-Oct., p. 8.

New Publications
Agroforestry for Soil Conservation. Sept.-Oct., p. 19.

Dynamics of Soil Organic Matter in Tropical Ecosystems. April, p. 19.

Earth: The Stuff of Life. May, p. 18.

Handbook of Statistical Methods for Engineers and Scientists. May, p. 18.

International Journal of Tropical Agriculture. March-April, p. 23.

Irrigation of Agricultural Crops. March-April, p. 23.

Louis Bromfield at Malabar. June, p. 15.

1990 Ag Software Directory. Sept.-Oct., p. 19.

Range Development and Improvements. Jan.-Feb., p. 19.

Rural Development Issues of the Nineties: Perspectives from the Social Sciences. May, p. 18.

Subsurface-Water Flow and Solute Transport: a federal glossary of selected terms. Nov.-Dec., p. 23.

Sustainable Agriculture in Temperate Zones. Sept.-Oct., p. 19.

Sustainable Agricultural Systems. March-April, p. 23.

The Science of Soil. Nov.-Dec., p. 23.

Water Quality Indicators Guide: Surface Waters. April, p. 19.

Other
A Dream Comes True, (Ariz.). Lesia Young, March-April, p. 14.

Exhibit Opens In Iowa, (Iowa). Colleen Weinzel, June, p. 13.

PACT Contest Winners Announced. Paige Mitchell, March-April, p. 22.

SWCS Honors Four of Its Own. March-April, p. 21.

Partnerships
Agencies Cooperate In Iowa, (Iowa). Paige Mitchell, March-April, p.18.

'Bagging For Pride' Catahoula Style, (La.). Herb Bourque, March-April, p. 21.

Comments from the SCS Chief: Partnerships in Conservation. March-April, p. 2.

Constructed Wetlands Handle Waste, (Ga.). Sarah Taylor, March-April, p. 5.

Extra Effort Brings Success, (W. Va.). Herbert Andrick, March-April, p. 15.

Farmers Respond to Videotape, (Iowa). Colleen Weinzel, March-April, p. 19.

Hog-Raising County Cleans Up, (S.C.). Debbie Cribb, March-April, p. 6.

Idaho's 'CRM Team' Defuses Conflicts, (Idaho). Robert Baum, March-April, p. 10.

National Conservation Program: A Framework for Cooperative Action. Emma B. Corcoran, March-April, p. 16.

SCS Focuses On Limited Resource Farmers, (Pa.). Sylvia Rainford, March-April, p. 9.

Time To Say 'Whoa' On the Tangipahoa, (La.). Herb Bourque, March-April, p. 4.

Videotape Used Successfully, (boxed). Colleen Weinzel, March-April, p. 19.

People
Berg Honored. Jan.-Feb., p. 19.

Conservation district supervisors with 50 or more years of service. (boxed). March-April, p. 9.

Conservation Winners Named. Kim Berry-Brown, April, p. 18.

Earth Team Volunteer Honored, (Miss.). Sarah Laurent, Nov.-Dec., p. 21.

Le Volontaire Francais, (La.). Herb Bourque, April, p. 8.

Retiring Is a Foreign Word to Her, (Tenn.). Lawrence Spurlock, Ill, March-April, p. 20.

Supervisor Marks 50-Year Conservation Career, (Md.). Kathleen Diehl, March-April, p. 8.

Taiwanese Students Volunteer in Mississippi, (Miss.). Becky McNair, April, p. 9.

Talented Volunteers Help SCS In Iowa, (Iowa). Paul G. DuMont, April, p. 13.

The First Volunteers. Douglas Helms, April, p. 7.

Volunteers Aid SCS Throughout Washington, (Wash.). Glenn Clark, April, p. 11.

Volunteers Assist at National Headquarters. Mary Ramey, April, p. 6.

Volunteers Doing the Job in Virginia, (Va.). Kim Berry-Brown, April, p. 10.

Volunteers Tripled Production, (S. Dak.). Joyce Watkins, April, p. 4.

Wisconsin Students Get Work Experience, (Wis.). Cheryl Rouse Manning, April, p. 12.

Plant Materials
Cotton Goes Under Cover In Deep South, (Miss.). James S. Parkman, Sept.-Oct., p. 10.

Native Roadside Plants Return, (Iowa). Colleen Weinzel, April, p. 15.

Plant Materials Conference Looks to 1990's. Curtis Sharp, June, p. 14.

Range and Pasture Management
Comments from the SCS Chief: Long-Term Planning for Range and Pastureland. Jan.-Feb., p.2.

Computers Help SCS Plan Grazing Management, (Tex.). Clifford W. Carter, Jan.-Feb., p. 16.

Connecticut Farm Alters Forage Production, (Conn.). Philip J. Morneau, Sept.-Oct., p. 13.

Farmers Help Clean Bear Creek, (Ala.). Morris S. Gillespie, Jan.-Feb., p. 17.

Farmer Sets Example For Urban Neighbors, (Oreg.). Shirley Boothby, Jan.-Feb., p. 8.

Irish Pasture Management, (N.Y.). Darrell L. Emmick, Jan.-Feb., p. 12.

Low Input, High Output, (Pa.). David Lorenz, Jan.-Feb., p. 9.

Prairie Chicken Habitat Promoted, (Wis.). Virginia Mayo Black, Jan.-Feb., p. 7.

Rabbits And 'Roos' Range Down Under, (La.). Jack Cutshall, Jan.-Feb., p. 13.

Ranchers Cope With Arizona Drought, (Ariz.). Dan Robinett, Jan.-Feb., p. 6.

SCS Using Computerized Range Data, (Tex.). Steven Ekblad, Jan.-Feb., p. 16.

SCS, USSR Exchange Reindeer Range Facts, (Alaska). Dan LaPlant, Jan.-Feb., p. 10.

Seeded Range Helps 'A-1' Make Money In Wyoming, (Wyo.). Robert Yaeger, Jan.-Feb., p. 4.

Shoshone Pipeline Increases Forage, (Nev.). Carol Brents, Jan.-Feb., p. 18.

Small Pastures Produce Plenty, (Mo.). Charlie Rahm, Jan.-Feb., p. 5.

USA, China Cooperate To Improve Grasslands, (Oreg.). Jack R. Carlson, Jan.-Feb., p. 11.

Utah Rancher Prevails by Tenacity, (Utah). Ron Nichols, Jan.-Feb., p. 15.

'Weed Talk' Focuses on Grazing Land, (Nebr.). Gene Lehnert, Jan.-Feb., p. 14.

Recreation

Farmers Help Clean Bear Creek, (Ala.). Morris S. Gillespie, Jan.-Feb., p. 17.

Clover Creek Once Again 'Fisherman's Dream', (Pa.). Sylvia Rainford, Nov.-Dec., p. 7.

Research

Case Studies Benefit Conservation. John Stierna, May, p. 6.

Maryland SCS Study "Average" Farmer, (Md.). Sarah Laurent, July-Aug., p. 14.

New Study Looks at How Farm Bill Is Implemented. Sept.-Oct., p. 11.

New York Study: No-Till Corn, (N.Y.). Paul Webb, May, p. 6.

SCS Assists Research In Kentucky, (Ky.). Matthew E. Byers et. al, July-Aug., p. 13.

Task Force Reports on Rural Programs. June, p. 14.

Resource Conservation and Development

Four New RC&D Areas Selected. May, p. 17.

Innovative Recycling That Works, (N.C.). Dawn Genes, May, p. 15.

Yellow Poplar Creates New Opportunities, (Md.). Bill Boyer, May, p. 14.

Software

mPHRED and BARNY Help Clean Up The LaPlatte, (Vt.). Ann Dudas, Nov.-Dec., p. 19.

New Data Base Released. March-April, p. 20.

NPURG Evaluates Pesticide Effects, (Mass.). Fred Suffian, Nov.-Dec., p. 9.

SCS'ers Are CAREing and Comparing, (Nebr.). Douglas A. Christensen, June, p. 7.

SCS Using Computerized Range Data, (Tex.). Steven Ekblad, Jan.-Feb., p. 16.

Training

New Training Piloted. Kathleen Diehl, May, p. 8.

Volunteers

Alabama Wins National Award. Kim Berry-Brown, April, p. 3.

Comments from the SCS Chief: Volunteers Have Helped SCS from the Start. April, p. 2.

Community Outreach Gets Job Done, (Wash.). Nance Dunn, April, p. 5.

Earth Team Volunteer Honored, (Miss.). Sarah Laurent, Nov.-Dec., p. 21.

Le Volontaire Francais, (La.). Herb Bourque, April, p. 8.

Taiwanese Students Volunteer in Mississippi, (Miss.). Becky McNair, April, p. 9.

Talented Volunteers Help SCS In Iowa, (Iowa). Paul G. DuMont, April, p. 13.

The First Volunteers. Douglas Helms, April, p. 7.

Volunteers Aid SCS Throughout Washington, (Wash.). Glenn Clark, April p. 11.

Volunteers Assist at National Headquarters, Mary Ramey, April, p. 6.

Volunteers Doing the Job in Virginia, (Va.). Kim Berry-Brown, April, p. 10.

Volunteers Tripled Production, (S. Dak.). Joyce Watkins, April, p. 4.

Water Quality

Agencies Cooperate In Iowa, (Iowa). Paige Mitchell, March-April, p.18.

Center Gives Water Quality Information, (Ind.). Vickie Tarvin, Nov.-Dec., p. 22.

Clean Water Program Cuts Phosphorus In the Saline, (Mich.). Gary Rinkenberger, Nov.-Dec., p. 18.

Clover Creek Once Again 'Fisherman's Dream', (Pa.). Sylvia Rainford, Nov.-Dec., p. 7.

Comments from the SCS Chief: Water Quality its Everyone's Responsibility. Nov.-Dec., p. 2.

Cooperative Well-Testing Program Expands, (Ohio). David B. Baker, Nov.-Dec., p. 11.

Demonstration Projects To Be Established. May, p. 16.

Extension Targets Rural Homeowners. Cathy Burwell, Nov.-Dec., p. 10.

Farmers Cultivate For Water Quality, (Conn.). Geri Nebor, June, p. 10.

Farmers Help Clean Bear Creek, (Ala.). Morris S. Gillespie, Jan.-Feb., p. 17.

Getting Help For Water Quality, (Conn.). Philip Morneau, June, p. 11.

Godfrey Creek Watershed Assisted, (Mont.). Tom Pick, Nov.-Dec., p. 12.

How To Succeed. (boxed). Nov.-Dec., p. 19.

Innovations Clean Streams, (Ala.). Morris Gillespie, Nov.-Dec., p. 13.

Iowa Produces Water Quality Videotape, (Iowa). Lynn Betts, Nov.-Dec., p. 22.

mPHRED and BARNY Help Clean Up The LaPlatte, (Vt.). Ann Dudas, Nov.-Dec., p. 19.

NPURG Evaluates Pesticide Effects, (Mass.). Fred Suffian, Nov.-Dec., p. 9.

Plants Filter Mississippi Fish Pond, (Tex.). Art Greenberg, Nov.-Dec., p. 6.

Resource Planning Brings Dividends, (Ill.). Kay Kitchen-Maran, Nov.-Dec., p. 20.

SCS Helps To Reduce Salt Runoff, (Colo.). Jerry Schwien, Nov.-Dec., p. 16.

Self-Help Checklist. (boxed). Nov.-Dec., p. 11.

Teamwork Cleans the Milwaukee River, (Nebr.). Majorie Christie, Nov.-Dec., p. 5.

Time To Say 'Whoa' On the Tangipahoa, (La.). Herb Bourque, March-April, p. 4.

Two-State Border Lake Improved, (Minn.). Michael Price, Nov.-Dec., p. 16.

Water Quality Assistance Provided. June, p. 15.

Water Quality Special Projects. May, p. 17.

What's Polluting The Milwaukee? (boxed). Nov.-Dec., p. 5.

USDA Plans For Water Quality Improvement. Diana Morse, Nov.-Dec., p. 4.

Water Supply

Cooperative Well-Testing Program Expands, (Ohio). David B. Baker, Nov.-Dec., p. 11.

Extension Targets Rural Homeowners. Cathy Burwell, Nov.-Dec., p. 10.

Watersheds

Godfrey Creek Watershed Assisted, (Mont.). Tom Pick, Nov.-Dec., p. 12.

Wetland(s)

Constructed Wetlands Handle Waste, (Ga.). Sarah Taylor, March-April, p. 5.

Plants Filter Mississippi Fish Pond, (Tex.). Art Greenberg, Nov.-Dec., p. 6.

Wildlife

Wanted: Landowners To Help Kids Help Wildlife, (N. Dak.). Terry Messmer, Sept.-Oct., p. 17.

"If you have a dream, it's important to let others know what it is."

A Dream Comes True

DO DREAMS come true? Karen Charlesworth, an SCS soil conservation technician in the Chandler, Ariz., field office, can attest to the fact that they sometimes do.

Less than 2 years ago, Charlesworth was a secretary in the SCS Arizona State office. She held her position in high regard and her performance

was outstanding, but something was missing.

Instead of the office, she yearned to work out in the field. She had farming in her blood after growing up on a Utah dairy farm. Earlier, working 5 years as an SCS clerk-typist in the Roosevelt, Utah, field office, Charlesworth saw soil conservation technicians at work and aspired to join their ranks.

"If you have a dream, it's important to let others know what it is," Charlesworth mused. She took this step, letting former State conservationist Charles Adams know about her dream to become a soil conservation technician.

Karen Charlesworth, soil conservation technician, surveys the James Green farm near Chandler, Ariz. The next step will be to design land leveling for the farm. (Philip Jacquez photo)

Rather than plunging headfirst into a new position, Charlesworth had the chance to test the waters first: Late in 1989, on a 3-month detail to the SCS Phoenix field office, she worked directly with Lloyd Nelson, an experienced soil conservation technician. Her training included learning to design conservation features such as land leveling and concrete ditch lining, and to make tailwater recovery ponds.

After the detail, Charlesworth responded to an Upward Mobility Program vacancy announcement and won the chance to realize her dream by working in the Chandler, Ariz., field office. "My family has been supportive; the kids think it's great that Mom wants to be a soil conservation technician," Charlesworth noted.

James Green cited Charlesworth's friendliness and willingness to help during her visits to his farm in the Chandler area. Dino DeSimone, district conservationist of the Chandler field office, also spoke highly of Charlesworth: "I admire her tenacity. She enrolled in a drafting course and passed at the head of the class, and plans to complete a degree in agriculture at Arizona State University. She'll be a soil conservationist before you know it."

If you have any doubt that dreams can come true, ask Karen Charlesworth. And if you have career dreams, talk to your supervisor or human resources officer about exploring various employment opportunities that may be open to you.

Lesia Young, public affairs specialist, SCS, Phoenix, Ariz.



For nearly 30 years, Ware and SCS have made plans and taken action...

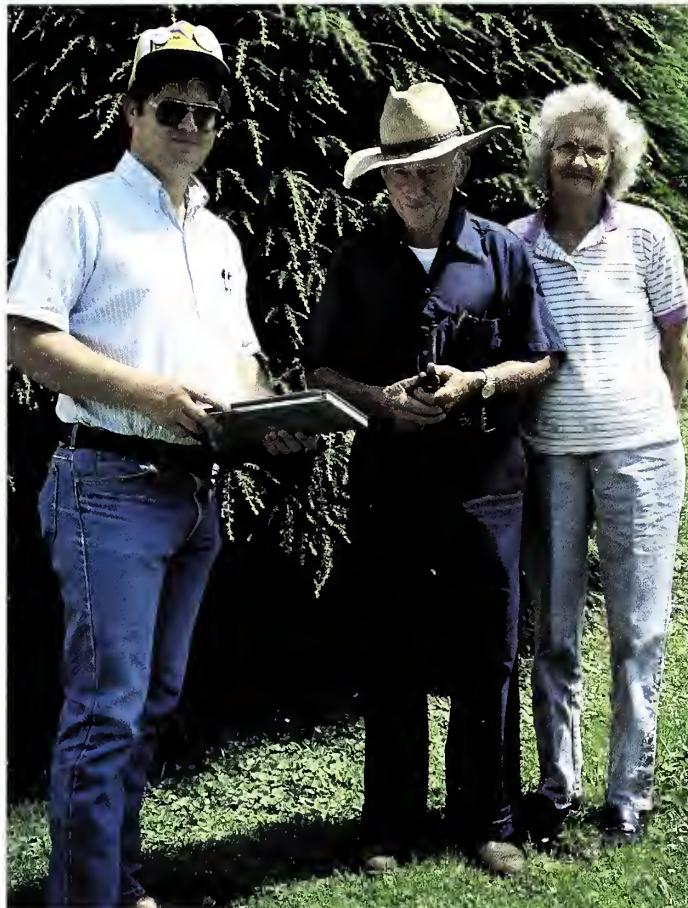
Extra Effort Brings Success

EACH SPRING, the hills of Barbour County, W.Va., ring with the echoes of musket and cannon fire that mark the reenactment of the first land battle of the Civil War. One Barbour County native who cannot hear the commotion is Theodore "Ted" Ware, who became deaf as a result of a World War II combat injury.

But Ware has no difficulty communicating with Soil Conservation Service staff from the Philippi, W.Va., field office. He tells about problems he encounters on his 127-acre farm near Junior, W.Va. Responding to written questions, he gives a spoken reply.

"Working with Ted is a pleasure," said Herbert Andrick, SCS district conservationist, Philippi, W. Va. "He always has a positive attitude and welcomes new ideas and challenges."

For nearly 30 years, Ware and SCS have made plans and taken action to conserve water, save soil, and improve the productivity of Ware's meadows, pastures, and woodlands. During this time, Ware and his wife Della have raised a family of seven children on the farm. Ware has also been a long-



SCS District Conservationist Herb Andrick, left, visits with Ted Ware and his wife Della as they discuss the conservation plan for the farm. (Cecil Springer photo)

term cooperator with the Tygarts Valley Soil Conservation District.

Over the years, Ware has built a pond, two spring developments, and four troughs to provide more water to his livestock. Using SCS planning and design help, he put up 3,000 feet of pasture division fencing, installed 2,500 feet of subsurface drainage, and reseeded 58 acres of pasture to feed his cattle.

When Ware first came to SCS for assistance, his farm was covered with brush, trees, and rocks and

could only accommodate six brood cows. Today grass is abundant, so he can keep 16 head of crossbred beef cows for breeding and raise their calves to sell. About his association with SCS, Ware declared himself "very happy with the results."

Cecil Springer, soil conservation technician, SCS, Philippi, W.Va.

National Conservation

National Conservation Program: A Framework for Cooperative Action

THE SOIL Conservation Service reports significant progress in implementing the Department of Agriculture's (USDA) National Conservation Program (NCP).

The NCP was mandated by the Soil and Water Resource Conservation Act (RCA) of 1977. The NCP guides policy for the conservation activities of eight USDA agencies. The program is based on three principles:

- Concentrating efforts on problems identified as national **priorities** will increase NCP effectiveness;
- **Cooperation** among all conservation partners—Federal, State, and local agencies and private organizations—is critical to NCP effectiveness; and
- Conservation programs and other farm programs must be **consistent**—all USDA commodity programs should support conservation goals, and conservation programs should provide cost-effective solutions to producers.

In 1988, USDA updated the 1982-87 NCP to provide guidance for the 1988-97 period. SCS reports that, in 1988 and 1989, USDA agencies made progress in implementing these three principles.

National conservation **priorities** that USDA is concentrating on for 1988-97 are:

- Reducing damage caused by excessive soil erosion on rural lands; and



A green no-till soybean crop emerges through wheat stubble on a farm in South Carolina. (Tim McCabe photo)

- Protecting the quality of surface and ground water against harmful contamination from nonpoint sources and thereby maintaining water quantity.

Under the 1982-87 NCP, USDA's efforts helped to reverse the trend in sheet and rill erosion on cropland. After increasing during the

Dorlene Hicks, district conservationist, SCS, Malvern, Ark., goes to the field to talk with farmer Eugene Slater about his conservation plan. (Ron Nichols photo)

1970's, sheet and rill erosion on cropland was 0.5 ton per acre per year less in 1987 than in 1982.

In 1988 and 1989, progress in reducing erosion continued. SCS reported that erosion reduction achieved under ongoing programs was comparable to that achieved in preceding years even though considerable time was redirected to helping operators develop the conservation plans required of USDA program participants under the Food Security Act (FSA) of 1985.

USDA assisted in protecting water quality from nonpoint source pollution under a number of ongoing programs, including the Small Watershed Program, Rural Abandoned Mine Program, Great Plains Conservation Program, Colorado River Salinity Control Program, Conservation Reserve Program, and Agricultural Conservation Program; and through Conservation Technical Assistance.

In addition, USDA undertook



The NCP provides clear goals and the framework for cooperative action...



SCS district conservationist David Steffen meets Keith Whipple and son Josh on the Whipple ranch in Mellette County, S. Dak., to inspect grasses and review range conditions. (Tim McCabe photo)

new activities dealing with potential hazards of water pollution by agricultural chemicals, especially pollution of ground water.

In 1989, USDA completed planning a comprehensive, coordinated water quality program for 1990-94. Farmers, ranchers, and forest landowners will receive information and technical assistance to help them voluntarily meet State water quality standards and address onfarm environmental concerns.

USDA **cooperates** with members of the conservation partnership in many activities.

First, USDA assists State governments and soil and water conservation districts to improve their capabilities in identifying resource problems, setting priorities, and defining conservation goals. In 1989, SCS completed planning to assist districts in building their capacity to address local problems.

Second, USDA assists States and local governments in addressing priority problems that they identify. Problems may correspond to the national priorities or be of more local concern.

During 1988 and 1989, USDA assisted in addressing State and local priorities of water conservation; managing rangeland, pastureland, and forestland; reducing flood damages in upstream areas; preserving wetlands; and enhancing outdoor recreation opportunities.

Third, USDA is expanding its assistance to small-scale, limited-resource, and minority producers.

In 1988 and 1989, USDA and the 1890 Institutions and Tuskegee

University took steps to strengthen their links and to attract minority students into agriculture.

SCS, the Agricultural Stabilization and Conservation Service, and the Bureau of Indian Affairs entered into a memorandum of understanding to more effectively implement conservation on Indian lands.

In 1988 and 1989, USDA continued and increased its activities to implement the broad, **consistent** coordination between USDA commodity and conservation programs mandated by FSA. The FSA conservation title made production control, income support, and conservation programs reinforce each other.

In addition to recognizing the need for producers who practice conservation to be economically competitive, USDA increased research to improve the cost-effectiveness of conservation/production systems.

As we move into the 1990's, SCS and other USDA agencies will implement plans they have developed in cooperation with the conservation partnership to address priority concerns.

The NCP provides clear goals and the framework for cooperative action that will enable public and private sectors to work together to meet the challenges and opportunities of the new decade.

Emma B. Corcoran, program analyst, SCS, Washington, D.C.



Aerial view gives a good perspective on a South Carolina field where stripcropping is practiced. (Tim McCabe photo)

The key now is to keep communication open and for all involved to carry out their commitments.

Agencies Cooperate In Iowa

EIGHT FEDERAL and State agencies, as well as local groups and individuals, are working together on a 5-year cooperative project to improve water quality in Iowa.

Corydon Lake serves 1,800 residents as a water supply source for the town of Corydon in southern Iowa. The lake is polluted with chemicals, sediment, fertilizers, and animal waste, but Corydon residents should soon begin to see improvements in the water supply.

The Agricultural Stabilization and Conservation Service has \$100,000 available for 75-percent cost-share, up to a \$3,500 limit per farmer each year. The Soil Conservation Service is helping landowners apply soil conservation and water quality practices.

The Environmental Protection Agency (EPA) is funding an integrated pest management program, and the Iowa State Extension Service is taking leadership in training people in monitoring pests. In addition, EPA, the Iowa Department of Natural Resources, and the U.S. Geological Survey are monitoring water quality throughout the project.

What's more, the city of Corydon is providing up to \$25,000 for the project. In order to be able to seed it to native grasses, the

city purchased land around Corydon Lake from a private land-owner.

The Wayne County Soil and Water Conservation District is a full partner in promoting the use of conservation practices, as is the Iowa Department of Agriculture and Land Stewardship's Division of Soil Conservation. This division is providing up to \$100,000 for cost-share of conservation practices.

"If farmers in the watershed will commit to practices like measuring residue and altering tillage operations to ensure a protective cover on the land during intense runoff in the spring, the soil loss will be reduced to at least half of what it is now," said Doug Bahl, district conservationist, Corydon, Iowa.

Bahl added that animal waste contamination concerns are being addressed by installing lagoons with proper drainage. To contribute to better water quality, farmers are also being encouraged to practice integrated pest management. This process promotes close monitoring of pests before applying chemicals.

The Corydon project has the momentum to succeed. The key now is to keep communication open and for all involved to carry out their commitments.

Paige Mitchell, public affairs specialist intern,
SCS, Des Moines, Iowa

Participants in the Corydon Lake Project in Iowa review plan to install conservation practices. (Carl Joy photo)



Farmers Respond to Videotape

MORE THAN 96 percent of the people interviewed in a recent study said they would use another videotape like "Conservation On Your Own" if it were produced. And, three out of four farmers who viewed the videotape said they were going to apply some conservation practice on their own.

This information comes from telephone interviews conducted in Iowa to evaluate the effectiveness and usefulness of the eight-segment "how-to" videotape produced by the Soil Conservation Service and the National Association of Conservation Districts (NACD) last year.

NACD, the Iowa State University Extension, and SCS cooperated in a survey of people who borrowed the videotape for viewing between January and March of 1990. Of these 3,300 borrowers, 585 people from 18 counties were contacted and 480 responded to a telephone interview.

The purpose of the study was to determine if farmers could learn how to do some of their own conservation work by watching an educational videotape, and to see if an outreach distribution system worked.

The outreach distribution in Iowa consisted of having several local loan points such as grain el-

"I highly recommend that other farmers view the videotape, visit with SCS if they still have questions...then try the practice out," Renze said.

Videotape Used Successfully

"We needed to get buffer strips on the farm as quickly as possible," said Scott Renze, in Crawford County, Iowa. "I knew the Soil Conservation Service was extremely busy this spring."

It was last spring when Renze, manager of a 600-acre farm for Weitkamp, Inc., decided he would try to lay out the buffer strips himself.

The first thing he did was borrow the "Conservation On Your Own" videotape that was produced by the National Association of Conservation Districts and SCS. This 60-minute "how-to" videotape gives step-by-step instructions on how to apply conservation practices.

Renze said he had reservations at first, but after watching the videotape he was ready to tackle the job. He called Jay Ford, SCS district conservationist in Crawford County, to get a few more tips. He then recruited a neigh-

bor to help him lay out the buffer strips on 250 acres.

"I highly recommend that other farmers view the videotape, visit with SCS if they still have questions, review the videotape again if necessary, then try the practice out," Renze said. He also recommended using the Iowa SCS field handbook because "it is a helpful refresher before going to the field and it provides specific written details."

Besides managing the 600-acre Weitkamp farm, he co-owns a family farm of 560 acres. Both farms use conservation tillage. The conservation plans call for terracing, contouring, field borders, and grass waterways, as well as the already established buffer strips. Renze says he'll continue to do as much of his own conservation work as he can.

Colleen Weinzel, public affairs specialist, SCS, Des Moines, Iowa

evators, farm supply stores, and other agencies where farmers could pick up a copy of the videotape to watch at home. In some counties, as many as 20 locations were selected as loan points. Each county had 30 copies to distribute, and each county was responsible for local publicity.

Survey highlights include:

- Most participants learned about the videotape from several sources including SCS, ASCS, and farm publications.
- About two-thirds of those surveyed would rather watch the videotape at home than in a group setting.
- Nearly 90 percent said they would not like to watch the video

in a large group of more than 10 people.

- While only 29 percent borrowed the videotape with the intention of learning how to do conservation work, 78 percent said they are going to do some of their own work.
- 97 percent said the videotape was a good way to get information.
- 95 percent said they would use a similar "how-to" videotape.

A more complete summary of the results is available from NACD, P.O. Box 855, League City, TX 77574.

Colleen Weinzel, public affairs specialist, SCS, Des Moines, Iowa

New Data Base Released

The U.S. Department of Agriculture (USDA) recently announced the availability of the first national computerized data base with fully referenced lists of the physical and chemical properties of pesticides. With this information, USDA specialists will be able to assist farmers in managing pesticide applications under specific soil conditions to avoid causing water quality problems.

"Farmers and ranchers do not want to pollute water," said Mack Gray, acting associate chief, Soil Conservation Service. "With this new data base, we now have a tool that can help farmers be proactive in managing their agricultural chemicals to protect rural water supplies."

Gray said the information in the pesticide properties data base is highly reliable. "For every number in it, we have either a scientific paper or a letter from a chemical manufacturer to authenticate it. This is the first such national data base that is fully referenced."

The data base, compiled by USDA's Agricultural Research Service (ARS), consists of 16 chemical and physical properties of 92 widely used pesticides, and eventually will be expanded to over 200 pesticides with 40 properties for each.

Gray said SCS and ARS have been collaborating for years to develop simulators of soil processes that predict the movement of agricultural chemicals through soil.

The simulators require data on physical and chemical properties of both soils and pesticides.

ARS Administrator R. Dean

Plowman said the agricultural chemical industry deserves credit for helping establish the data base, which was developed with information from chemical manufacturers through the efforts of the National Agricultural Chemical Association. "This cooperation signals that the industry is committed to ensuring the safe and proper use of its chemicals to prevent environmental harm," Plowman said.

"The data base is a major step forward for government agencies involved in water quality assessments of agrichemical use," Gray said.

The data base is available to researchers on diskette. It will be available to farmers and ranchers from their local SCS offices in about 6 to 12 months, as soon as the data base subsets have been distributed. Inquiries about the pesticide properties data base should be addressed to: Systems Research Laboratory, USDA, ARS, BARC, Bldg. 011A, Room 165B, Beltsville, MD 20705.

Retiring Is a Foreign Word To Her

When retirement comes to mind, most people give it serious thought after 30 years. Not so for a Tennessee woman who has been working for the U.S. Department of Agriculture (USDA) 50 years, and is still going strong.

Opal Cross, a budget analyst, started work for Farm Security, now the Farmers Home Administration, in 1940. She moved to the Soil Conservation Service in 1954.

She started working with USDA when Roosevelt was president, and says she has seen great changes through the years. "When President Roosevelt was in office, they had just started many farm programs. Through the years the programs have been good, and I think there have been many improvements during this time."

One of the changes Cross spoke of was the reduction of the erosion in the countryside. "When I first started to work I was shocked when I would drive down the roadway; and now, there are no big gullies or road banks that are just gravel and washing off. The countryside looks improved."

Asked if she ever imagined working this long, Cross replied, "I didn't have any idea I would work this long. I've had the nicest people to work with, and that means a lot. I've learned many things and have appreciated the environment a little more."

Cross has received letters from President Bush and Secretary of Agriculture Clayton Yeutter. Also, she has received a diamond pin and a plaque for her 50 years of service to USDA.

Lawrence M. Spurlock, III, former intern, SCS, Washington, D.C.

'Bagging For Pride' Catahoula Style

The Catahoula Soil and Water Conservation District (SWCD), in cooperation with Glad Wrap and Bags, Inc., sponsored an anti-litter campaign in central Louisiana last summer.

"The district board of supervisors has been very conscious of the litter problem in the parish, and this project seemed like a good opportunity to help solve the problem," said Barbara Wright, SWCD secretary.

The 1-day, parishwide project took months of planning. The district, the Soil Conservation Service, and the Catahoula Parish Police Jury (Commissioner's Court) worked together to put the program into action.

"Thirty-seven tons of roadside litter—unbelievable!" said Wright. "That's how much trash we picked up in 1 day during our anti-litter effort."

"In the beginning, I worked with Tri-parish Economic Foundation Director Rena Pitts," said Wright. "Then I worked through Glad's public relations agency in New York. The company provided a step-by-step program on what to do and when to do it. Everyone was so helpful."

"The Catahoula Conservation District board of supervisors and SCS district conservationist A. Clyde Irvin strongly supported Barbara's idea," said Mollie McCarty, district chairperson during the event. "Each person was



Volunteers pick up roadside litter in the 'Bagging For Catahoula Pride' anti-litter project in Central Louisiana. (Barbara Wright photo)

committed to helping the project succeed. We nicknamed the project 'Bagging For Catahoula Pride.'

The parish was divided into 11 areas. A chairperson for each area coordinated and planned the day's event. Volunteers were recruited and responsibilities assigned for different highways.

About 250 people participated in the event. They picked up many tons of roadside litter, and cleaned and restored an illegal dump site; 5 tons of litter were picked up from that site alone.

"Glad provided 1,500 large bags," said Alma Womack, conservation district supervisor. "The Louisiana Department of Transportation and Development provided another 600 bags."

The Catahoula News Booster, the local newspaper, was very supportive of the project. It published numerous news articles that helped bring about a greater awareness of the litter problem.

"We still have some litter along our highways," said Wright, "but I

know that this effort has shown that a lot of people care and are willing to do something about the problem." As a result of this successful effort, the district plans to sponsor an anti-litter program every year.

Herb Bourque, public affairs specialist, SCS, Alexandria, La.

SWCS Honors Four of Its Own

The Soil and Water Conservation Society (SWCS) has named the Outstanding Service Award winners for 1990. The award is presented to SWCS members for their extraordinary service to the organization as well as their professional achievements over an extended period of time.

The awards were presented by Richard Duesterhaus, SWCS presi-

dent, at a banquet concluding the Society's 45th annual meeting held in August 1990. The four award winners are Gerald Calhoun, Randall Giessler, Theodore Ifft, and Larry Poindexter.

Calhoun was recognized for promoting a conservation ethic throughout his 34-year career with the Soil Conservation Service and Extension Service. He has been active in SWCS activities at the chapter and international levels.

Giessler was recognized for his professional achievements and for his efforts at local, State, and national levels to promote SWCS goals. Giessler has been an SWCS member since 1962.

Ifft was recognized for his leadership and contributions to SWCS at chapter, regional, and international levels. He is a member of three SWCS chapters, two of which he served as president.

Poindexter was recognized for his leadership and contributions to the Oklahoma chapters of SWCS. Poindexter has held numerous offices in the Oklahoma chapters.

PACT Contest Winners Announced

Three winners received the first PACT awards at the July 1990 Annual Meeting of the Soil and Water Conservation Society, in Salt Lake City, Utah.

PACT, or Profitable Agriculture through Conservation Technology, is a new program sponsored by the National Association of Conservation Districts' Conservation Technology Information Center. PACT awards honor North American journalists who feature environmental and economic aspects of conservation technology in their writing.

"We're quite pleased with the number and quality of entries," said John Becherer, CTIC executive director, commenting on the 150 entries. "It's established a solid precedent to build on in future contests."

1990 PACT award winners for Best Feature were Jim Patrico, Dick Seim, Charles Johnson, and Karen Freiberg, authors of "Dead Creek Lives Again," published in Farm Journal. The winner for Best Series/Themed Issue was John Walter, author of "Farming in the Flyways" in Successful Farming. The winner for Best Editorial was John Miller, author of "How to Farm Wisely and Well" from the Des Moines Sunday Register. Cash awards were presented.

To learn more about the next contest, contact John Becherer or Vickie Tarvin at CTIC, 1220 Potter Drive, Room 170, West Lafayette, IN 47906-1334 or telephone (317) 494-9555.

Paige E. Mitchell, public affairs specialist intern, SCS, Des Moines, Iowa

Almanac Gives A Boost to Education Project

An association of eight Soil and Water Conservation Districts in northeastern Illinois, collectively called Land Use Council 16, has developed the Leopold Education Project.

The project is based on Aldo Leopold's "A Sand County Almanac." Leopold was one of the great champions of sound land management.

The council purchased some 11,000 copies of the Almanac, and is distributing it to the public as a means of raising environmental awareness.

Educational materials for students have been developed to be used with the Almanac. Activities in subjects ranging from nature to soil stewardship are covered and can be performed in indoor or outdoor classroom settings.

On Earth Day 1990, free copies of the Almanac were distributed to county boards, zoning officials, politicians, landowners, and schools. By doing this, Council 16 hopes to educate a wide cross section of Illinois citizenry as to what is contained and what is desirable in a good land ethic.

"A Sand County Almanac" is available for purchase in quantity. For more information, write Dan Kane, resource conservationist, P.O. Box 218, Belvidere, IL 61008.

Michael Platt, regional representative, Illinois Department of Agriculture, Springfield, Ill.

International Journal of Tropical Agriculture

Editor-in-chief, Dr. R. D. Laura

This India-based quarterly publishes original research papers, reviews, notes, short communica-

tions, and book reviews in English on all aspects of fundamental and applied tropical agriculture. It includes soil and water management and crop and livestock production subjects.

Agronomists and plant, soil, environmental, and agricultural scientists can make use of this journal. Papers for publication are welcome, particularly from scientists

working in tropical and subtropical countries. Advertisements are accepted.

Annual subscription is U.S.\$30 for individuals and U.S.\$60 for institutions; postage is extra. Direct inquiries to Dr. R. D. Laura, International Journal of Tropical Agriculture, 8/16, New Campus, Haryana Agricultural University, Hisar—125 004, Haryana, India.

Irrigation of Agricultural Crops

Edited by B. A. Stewart and D. R. Nielsen

Also identified as Agronomy Monograph, this 1990 publication focuses less on irrigation expansion (the theme of a 1967 monograph) and more on irrigation conservation and irrigation effects on the environment. This 1,246-page work addresses today's concerns in both theoretical and practical terms.

Over 70 international specialists contributed information on irrigation, soil-water dynamics, soil-wa-

ter relations, water movement in plants, water uptake, water deficits, evapotranspiration, and irrigation systems and scheduling. Their titles and addresses are listed.

Major monograph sections cover overview, philosophy, technical questions, soil-plant-water relations, onfarm irrigation practices, irrigation needs and responses on 17 crops and groups of crops, and irrigation effects on the environment.

Irrigation of alfalfa, corn, wheat, soybeans, peanuts, sorghum, cotton, sunflowers, sugar beets, tobacco, sugarcane, potatoes,

turfgrass, vegetables, citrus trees, deciduous fruit and nut trees, and grapevines are covered.

Researchers, practicing professionals, farmers, and decisionmakers will benefit from this updated irrigation information. Reference listings follow each section. The subject index covers 30 pages.

Hardcover cost is \$66 from the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America Headquarters Office, Attention: Book Order Department, 677 South Segoe Road, Madison, WI 53711.

Sustainable Agricultural Systems

Edited by Clive A. Edwards, Rattan Lal, Patrick Madden, Robert H. Miller, and Gar House

Agricultural sustainability, its economic and environmental implications, and positive steps farm managers can take to promote the concept are examined in this 696-page, 1990 release from the Soil and Water Conservation Society.

The book comprehensively

documents issues related to sustainable agriculture. History of the sustainable agriculture movement is covered, then more specific elements: international research, current agronomic and ecological characteristics of cropping systems, sociological and economic factors, conservation farming in Third World settings, and policy and program development.

While much of the world's agriculture today uses a high input of commercial fertilizers and pesticides to maintain production capacities, the international collec-

tion of authors who contributed to this new book offer alternatives that demonstrate workable farming methods to reduce adverse environmental impacts while maintaining farm productivity and profitability.

This book gives a comprehensive overview for researchers, conservationists, policymakers, farmers, and others interested in sustainable agriculture worldwide.

Hardbound cost is \$40 postpaid from the Soil and Water Conservation Society, 7515 N.E. Ankeny Road, Ankeny, IA 50021-9764.

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Soil Conservation Service
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Conservation Calendar

March	7-8	"Saving the Land that Feeds America: Conservation in the Nineties," American Farmland Trust, Washington, D.C.
	19-22	Emergency Information System Conference, Research Alternatives, Inc., Rockville, Md.
	22-27	56th North American Wildlife and Natural Resources Conference, Alberta, Canada
	27-30	National Science Teachers Convention, Houston, Tex.
April	8-11	"Global Warming-A Call for International Coordination," SUPCON International, Chicago, Ill.
	9-11	"Cover Crops for Clean Water" Conference, Soil and Water Conservation Society, Jackson, Tenn.
	28-May 5	National Soil and Water Stewardship Week
	30-May 2	National Association of State Departments of Agriculture Food Exposition, Las Vegas, Nev.
May	6-12	Public Service Week
	13-17	RECLAMATION 2000: Technologies for Success, American Society for Surface Mining and Reclamation, Durango, Colo.
June	18-20	International Ocean Technology Congress, Glasgow, Scotland
	23-26	American Society of Agricultural Engineers International Summer Meeting, Albuquerque, N. Mex.
	29-July 3	75th International Agricultural Communicators in Education Conference, Rapid City, S. Dak.